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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,644	01/10/2000	Richard Allen Dunlap	CISCP118	4562
22434	7590	02/08/2007		
BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER SING, SIMON P	
			ART UNIT	PAPER NUMBER
			2614	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/480,644

Applicant(s)

DUNLAP, RICHARD ALLEN

Examiner

Simon Sing

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2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-20 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 13-17, 19, 20 and 25 is/are rejected.
- 7) ☐ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 13-15, 17, 19, 20 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. US 4,291,198 in view of Gaudio US 4,667,183 and further in view of Tran et al. US 6,253,319.

1.1 Regarding claims 13 and 25, Anderson discloses a telephone set 10 with a display screen 13 and soft keys 16 in figures 1 and 2. Anderson teaches soft key label sets corresponding to the soft key 16 in figure 8, and each label set has a function (such as call by number, call by menu etc) in a particular context including text strings controlled by a processor 43 in figure 4. Anderson also teaches changing soft key label sets (controlled by a software or claimed call manager object) when one on the soft key is pressed (marked by an X in figure 8) (column 13, line 35 to column 14, line 60).

Anderson further teaches de-bouncing keys by either software or hardware, (column 19, lines 35-41), but fails to teach a de-bouncing circuit with a time delay.

However, Gaudio discloses anti-bouncing circuits 22 and 23 in figure 1 for de-bouncing a telephone keypad 11. Gaudio teaches that each anti-bouncing circuits contains a well known RC circuit to prevent multiple pulses from an operation of a key (column 3, lines 27-35).

In addition, Tran teaches a RC de-bouncing circuit with a time constant up to 500 milliseconds (ms) (column 6, lines 27-35).

Therefore, since during the soft key label set change, the state of the soft keys 16 would have been undefined and it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Anderson's reference with the teachings of Gaudio and Tran, so that the de-bouncing of Anderson would have been a RC circuit with a time delay up to 500 milliseconds, and such delay would have been sufficient to cover display changes. The motivation of such a modification was to prevent any key entry during an undefined state of the soft keys.

1.2 Regarding claim 14, Anderson teaches a processor with associated software (objects) for handling the soft key label set change (column 13, line 35 to column 14, line 60).

1.3 Regarding claim 15, Anderson teaches masking a previous display (replacing a previous one with a current one) in figure 8.

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1.4 Regarding claim 17, Anderson teaches when a soft key label (which is index with a sub menu number) is selected, a next level of soft key labels are displayed in figure 8.

1.5 Regarding claims 19 and 20, it is obvious that a processor in the telephone set 10 determines a current context in order to change from one soft key label set to another shown in figure 8.

2. Claims 13-15, 17, 19, 20 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. US 4,291,198 in view of Schildt, Herbert, "C Power User's Guide" McGraw-Hill 1988.

Anderson discloses a telephone set 10 with a display screen 13 and soft keys 16 in figures 1 and 2. Anderson teaches soft key label sets corresponding to the soft key 16 in figure 8, and each label set has a function (such as call by number, call by menu etc) in a particular context including text strings controlled by a processor 43 in figure 4. Anderson also teaches changing soft key label sets (controlled by a software or claimed call manager object) when one on the soft key is pressed (marked by an X in figure 8) (column 13, line 35 to column 14, line 60).

Anderson fails to teach that while the display changes, the soft keys 16 are disabled.

However, in a sample program, Schildt teaches a pull down menu in that a "get_resp" function (scanning keyboard to get a user's input, page 43) is called after a

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"display_menu" function (displaying a new menu, page 42) within a "pulldown" function (displaying pull down menus, or windows, page 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Anderson's reference with the teachings of Schildt, so that a display function (or subroutine) would have been called for displaying a soft key label set before a key-in (user response, or soft key input) function was called, such that any user's input of soft key 16 would have been detected only after a soft key label set display had been changed (completion of a display function). The motivation of such a modification was to clarify the relationship of a display function and a key-in (user response) function.

2.2 Regarding claim 14, Anderson teaches a processor with associated software (objects) for handling the soft key label set change (column 13, line 35 to column 14, line 60).

2.3 Regarding claim 15, Anderson teaches masking a previous display (replacing a previous one with a current one) in figure 8.

2.4 Regarding claim 17, Anderson teaches when a soft key label (which is index with a sub menu number) is selected, a next level of soft key labels are displayed in figure 8.

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2.5 Regarding claims 19 and 20, it is obvious that a processor in the telephone set 10 determines (or remembers) a current context in order to change from one soft key label set to another shown in figure 8.

3. Claims 13-17, 19, 20 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Chewning III et al. US 5,416,831 in view of Schildt, Herbert, "C Power User's Guide" McGraw-Hill 1988.

3.1 Regarding claims 13 and 25, Chewning discloses a telephone set 14 with a display screen 26 and soft keys 27 in figure 12. Chewning teaches soft key label sets corresponding to the soft key 27 in figure 13 (SELECT, HELP, QUIT), figure 14 (SELECT, BACKUP, RESTART), and figure 16 (INFO, TIMES, RESSERVE). Each label set has a function in a particular context including text strings (column 21, lines 22-31; column 22, lines 63-67; column 23, lines 23-27, 35-40; column 25, lines 29-43), and is controlled by an adjunct processor 12 in figure 1 with associated software (call manager object) when one of the soft keys 27 is pressed (column 21, lines 39-50; column 22, lines 18-38; column 6, lines 41-68).

Chewning teaches a time out after each key is pressed, but fails to teach that while the display changes, the soft keys 27 are disabled.

However, in a sample program, Schildt teaches a pull down menu in that a "get_resp" function (scanning keyboard to get a user's input, page 43) is called after a

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“display_menu” function (displaying a new menu, page 42) within a “pulldown” function (displaying pull down menus, or windows, page 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chewning's reference with the teachings of Schildt, so that a display function would have been called for displaying a soft key label set before a key-in (user response, or soft key input) function was called, such that any user's input of soft key 27 would have been detected only after a soft key label set display had been changed (completion of a display function). The motivation of such a modification was to clarify the relationship of a display function and a key-in (user response) function.

3.2. Regarding claim 14, Chewning teaches a service program 18 (claimed line handler and a call pane object, see column 21, lines 39-50; column 8, lines 59-68; column 9, lines 62-68).

3.3 Regarding claim 15, Chewning teaches a valid mask (over writhing a previous soft key label set) in figures 13-29).

3.4 Regarding claim 16, Chewning teaches that the soft key label sets are stored remotely form the telephone set 14 (column 6, lines 41-68; column 21, lines 39-50; column 24, lines 47-62; column 25, lines 29-43).

3.5 Regarding claim 17, it is obvious Chewing using an index (menu, sub-menu) for handling soft key label sets (column 21, lines 39-50; column 22, lines 18-27; column 25, lines 43).

3.6 Regarding claims 19 and 20, it is obvious that the processor 12 in figure 1 determines a current state for handling soft key label sets (column 9, lines 62-68; column 22, lines 18-27).

Allowable Subject Matter

4. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

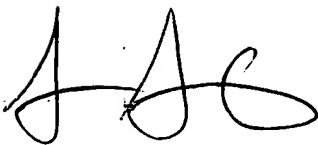
The prior arts cited fail to teach or suggest the claimed limitation of invalidating a text string of soft key label set by using a valid mask associated with an index (claim 18).

Response to Arguments

5. Applicant's arguments with respect to claims 13-20 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is 571-272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.



S. Sing

02/05/2007



FAN TSANG
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